

STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

COMMONWEALTH EDISON COMPANY,)

Approval of the Energy Efficiency and)
Demand-Response Plan Pursuant to Section 12-103(f) of)
the Public Utilities Act)

Docket No. 07-0540

Direct Testimony of
MARTIN G. FRUEHE
Manager - Rates
Revenue Policy Department
Commonwealth Edison Company

OFFICIAL FILE
I.C.C. DOCKET NO. 07-0540
ComEd Exhibit No. 4.0 & 4.1
Witness _____
Date 11/4/08 Reporter _____

November 15, 2007

ComEd Ex. 4.0

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1 **I. Introduction and Purpose**

2 **A. Identification of Witness**

3 Q. Please state your name and business address.

4 A. Martin G. Fruehe, Commonwealth Edison Company ("ComEd"), Three Lincoln Centre,
5 Oakbrook Terrace, Illinois 60181.

6 Q. By whom are you employed and in what capacity?

7 A. I am employed by ComEd as Manager - Rates, Revenue Policy Department.

8 **B. Purpose of Testimony**

9 Q. What is the purpose of your direct testimony?

10 A. The purposes of my direct testimony are to:

11 (1) Explain how ComEd proposes to determine the "revenue requirement" equivalent
12 of the return of and on a capital investment made in accordance with the provisions of
13 Rider EDA – Energy Efficiency and Demand Response Adjustment ("Rider EDA"),
14 which is included as Appendix F to ComEd's 2008-2010 Energy Efficiency and Demand
15 Response Plan ("Plan") (ComEd Ex. 1.0).

16 (2) Provide an estimate of the revenue requirement equivalent for the proposed
17 expansion of the Nature First demand response program.

18 **C. Summary of Conclusions**

19 Q. Please summarize the conclusions of your direct testimony.

20 A. ComEd believes that its proposed methodology for calculating the revenue requirement
21 equivalent associated with the expansion of the Nature First program is consistent with

the approach approved by the Illinois Commerce Commission ("Commission" or "ICC") in numerous rate proceedings. It therefore should be accepted and approved.

D. Identification of Exhibits

Q. What attachments are attached to and incorporated in your direct testimony?

A. I have attached the following exhibit to my testimony:

Exhibit 4.1: Proposed Calculation of the Annual Revenue Requirement Associated with the Anticipated Nature First Capital Investments Made in Association with Rider EDA.

E. Background and Experience

Q. Please summarize your duties and responsibilities in your current position.

A. As Manager - Rates, Revenue Policy Department, I am responsible for the strategic and tactical review and evaluation of potential regulatory alternatives for ComEd. I also am responsible for the oversight and coordination of rate case related activities at both the State and federal levels.

Q. Please summarize your educational background and professional experience.

A. I received a Bachelor of Science degree in Marketing from Northern Illinois University in 1987. I received a Masters of Business Administration with a concentration in Finance from DePaul University in 1997. I have worked at ComEd since 1992. I held the position of Account Representative from 1992 to 1997, in which I serviced the accounts of many of ComEd's large commercial, industrial and governmental customers. In 1998, I was promoted to the Strategic Analysis Department as an Economic Analyst, where I was responsible for supporting the capital budgeting process by evaluating the economic performance of major discretionary investments, as well as other operational financial

44 analyses. In 2003, I was promoted to the Regulatory Services and Strategy Department
45 as a Senior Regulatory Analyst. In that position, I was responsible for the strategic and
46 financial evaluation of post-2006 regulatory strategies, including power procurement and
47 associated cost recovery. In 2006, I transferred to the Revenue Policy Department, where
48 I was responsible for assisting in the determination of ComEd's revenue requirement and
49 preparation of regulatory filings with both the Commission and the Federal Energy
50 Regulatory Commission ("FERC"). In 2007, I was named Manager - Rates in the
51 Revenue Policy Department.

52 **II. Calculation of the Annual Revenue Requirement Related to Capital Investments**
53 **Associated with Expansion of the Nature First Program**

54 Q. When you refer to the "annual revenue requirement," what specifically do you mean?

55 A. When I use the term "annual revenue requirement" in my testimony, I specifically mean
56 the incremental annual costs of capital, depreciation and accumulated deferred income
57 taxes associated with the capital investments made as a part of ComEd's expansion of the
58 Nature First program to meet the demand response goals outlined in Section 12-103(c) of
59 the Public Utilities Act ("Act"). These capital investments include ComEd's purchase
60 and installation of new Nature First switches.

61 The annual operating and maintenance ("O&M") costs related to the expansion of
62 the Nature First program will also be recovered through proposed Rider EDA. The O&M
63 costs, as well as the total revenue requirement equivalent associated with the expansion
64 of the Nature First program, are set forth in the direct testimony of James C. Eber and the
65 attached exhibit (ComEd Exs. 3.0 and 3.1).

66 Q. How does ComEd propose to calculate the annual revenue requirement associated with
67 the capital investments necessary for expanding the Nature First program?

68 A. The calculations of the estimated revenue requirement related to the capital investments
69 necessary for expanding the Nature First program in all three years of ComEd's Plan are
70 shown in the attached ComEd Exhibit 4.1. As shown in ComEd Exhibit 4.1, we calculate
71 the annual revenue requirement by first determining the annual return on investment.
72 The annual return on investment is calculated by applying an after-tax weighted average
73 cost of capital to the average of the beginning-of-year and end-of-year rate base
74 associated with the Nature First capital investments. We use an average rate base in
75 order to appropriately capture the cost of capital associated with the year-to-year change
76 in rate base. We then apply a revenue conversion factor, to account for income taxes, to
77 the return on investment component. The depreciation for the year is added to the return
78 on investment component, and the resulting amount is the annual revenue requirement
79 related to capital investments. As shown in ComEd Exhibit 4.1, the estimated annual
80 revenue requirement associated with capital investments is \$82,481 for the twelve months
81 ending May 31, 2009, \$240,270 for the twelve months ending May 31, 2010, and
82 \$379,692 for the twelve months ending May 31, 2011.

83 Q. How is the rate base for the Nature First program determined?

84 A. For each of the three years in ComEd's Plan, ComEd has determined the number of
85 Nature First control switches to be installed to meet the statutory goals. For purposes of
86 the estimated revenue requirement, ComEd calculates the corresponding amount of
87 capital investment associated with such switches (*see* direct testimony of Mr. Eber,
88 ComEd Ex. 3.0), and adds this amount to the previous year's total to determine the total

gross investment. We then calculate book and tax depreciation accordingly, and subtract accumulated deferred income taxes and accumulated depreciation from the gross investment. The resulting amount is the year-end rate base. These calculations are detailed in the attached ComEd Exhibit 4.1. However, the actual investment may differ from these estimates and will be reflected properly in the annual reconciliation. For purposes of the annual reconciliation process described in the direct testimony of Paul R. Crumrine (ComEd Ex. 5.0), the actual number of switches installed and the corresponding amount of the capital investment will be used to determine the revenue requirement equivalent.

Q. What economic parameters are used to determine the weighted average cost of capital?

A. For purposes of estimating the revenue requirement, ComEd is using the economic parameters approved by the Commission in its most recent rate case (ICC Docket No. 05-0597) to determine the weighted average cost of capital. These factors include cost of debt, cost of equity, capital structure, and a revenue conversion factor. For purposes of the annual reconciliation process, ComEd will employ the most recent rate of return approved by the Commission to determine the revenue requirement. If, during the period the estimated revenue requirement is in place, the Commission approves a different rate of return, then we will use a weighted-average rate of return (by months in effect) in the reconciliation calculation. In the subsequent year, we will use the new rate of return to determine the estimated revenue requirement for that year.

Q. Does this conclude your direct testimony?

A. Yes.

Proposed Calculation of the Annual Revenue Requirement Associated with the Anticipated Nature First Capital Investments Made in Association with Rider EDA

Annual Capital Investment Calculation (1)

Plan Year	Total Eligible Peak Load at Meter (MW)	Demand Response Goal (% of Peak)	Annual Goal (MW)	Cumulative Goal (MW)	Annual Number of New Participants Needed (1,446 kW/Participant)	Cumulative Number of New Participants Needed	Annual Number of New Switches Needed *	Annual Capital Cost to Purchase Switch (\$50 per Switch)	Annual Capital Cost to Install Switches (\$65 per Switch)	Total Annual Capital Investment
2008	11,702	0.1	11.7	11.7	8,092	8,092	8,074	\$683,942	\$563,828	\$1,257,770
2009	11,128	0.1	11.1	22.8	7,695	15,786	8,249	\$659,908	\$538,175	\$1,196,083
2010	9,973	0.1	10.0	32.8	6,896	22,682	7,382	\$591,377	\$480,484	\$1,071,870

Annual Revenue Requirement Calculation Associated with Capital Investments

Plan Year A	Annual Investment B	Accumulated Gross Investment C	Annual Book Depreciation D	Annual Tax Depreciation E	Accumulated Book Depreciation F	Accumulated Deferred Income Taxes G	Year End Rate Base H (=C-F-G)	Average of Beginning and Year End Rate Base I	Return on Average Rate Base J	Revenue Conversion K	Revenue Requirement L (=D+K)
2008	\$1,257,770	\$1,257,770	\$15,345	\$47,168	\$15,345	\$12,847	\$1,229,778	\$614,898	\$40,201	\$67,133	\$52,481
2009	\$1,196,083	\$2,453,852	\$45,282	\$135,852	\$60,627	\$51,282	\$2,341,864	\$1,785,871	\$116,759	\$194,888	\$240,270
2010	\$1,071,870	\$3,525,723	\$72,951	\$210,522	\$133,577	\$115,304	\$3,276,841	\$2,809,402	\$183,678	\$306,742	\$379,892

(1) See direct testimony of Mr. James C. Eber and exhibit, ComEd Exs. 3.0 & 3.1.